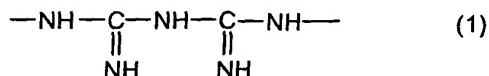


CLAIMS

1. An air-filter for a circulating and/or recirculating air system comprising a filter medium containing a microbiologically effective amount of a polymeric biguanide or salt thereof.

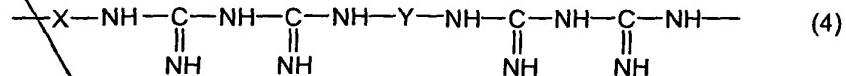
2. An air-filter as claimed in claim 1 wherein the polymeric biguanide contains at least two biguanide units of the Formula (1):



10

which are linked by a bridging group which contains at least one methylene group.

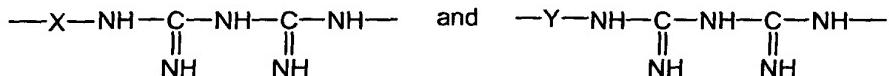
3. An air-filter as claimed in either claim 1 or claim 2 wherein the polymeric biguanide is a mixture of linear polymeric biguanides having a recurring polymer chain represented by Formula (4):



wherein X and Y represent bridging groups in which together the total number of carbon atoms directly interposed between pairs of nitrogen atoms linked by X and Y is more than 9 and less than 17.

4. An air-filter as claimed in claim 3 which is a mixture of polymers wherein the number of individual biguanide units of formulae:

25

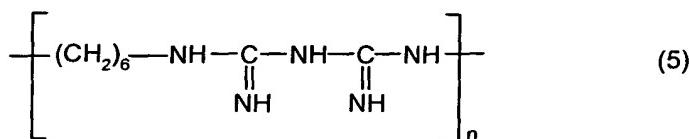


is, together, from 3 to about 80.

5. An air-filter as claimed in either claim 3 or claim 4 wherein the polymeric biguanide is poly(hexamethylene biguanide) in which X and Y are both $-(\text{CH}_2)_6-$.

6. An air-filter as claimed in any one of claims 1 to 5 wherein the polymeric biguanide is a mixture of polymers of the Formula (5):

35



wherein n is from 4 to 40.

7. An air-filter as claimed in any one of claim 1 to 6 wherein the polymeric biguanide is in the form of a hydrochloride salt.

8. An air-filter as claimed in any one of claims 1 to 7 wherein the filter medium is made from a natural polymer or synthetic plastics material.

10 9. An air-filter as claimed in claim 8 wherein the natural polymer is cellulose.

Sub A3 > 10. An air-filter as claimed in any one of claims 1 to 9 wherein the amount of polymeric biguanide contained on the filter medium is from 0.0001% to 10% based on the weight of the filter medium.

15 11. A air-filter according to any one of the preceding claims further comprising an odour control agent.

20 12. A method of reducing odours and/or air-borne micro-organisms in circulating and/or recirculated air which comprises passing air through a filter medium containing a polymeric biguanide or salt thereof.

13. A method as claimed in claim 12 wherein the air has a relative humidity between 20% and 80%.

25 14. A method for protecting a filter medium of a circulating and/or recirculating air system against microbial degradation which comprises incorporating in, or on, the medium a microbiologically effective amount of a polymeric biguanide or salt thereof.